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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,752	10/17/2003	Steven L. Wilmeth	20873.002	1980

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EXAMINER

HOOK, JAMES F

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,752

Applicant(s)

WILMETH ET AL.

Examiner

James F. Hook

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 4-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 21, 2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilmeth.

The patent to Wilmeth discloses the recited method and article with improved abrasion resistance of a section of piping for use in a pump delivery system of abrasive materials comprising providing a tubular metal body having an exposed exterior surface and a generally cylindrical internal surface, exposing the internal surface to an aqueous electrolyte solution containing at least water, chromic acid, and a catalyst such as a sulfate which is provided to increase plating rate and to deposit chromium on the inner surface to protect the surface, the internal surface is exposed to the electrolyte solution at a current density and at a plating temperature sufficient to form a chromium deposit of a desired thickness on the internal surface, where the chromium provides abrasion resistance, the chromium is deposited with an overlapping range with claim 9 (col. 3,

Art Unit: 3754

lines 61-68), where 0.008 is set forth and where such is approximately a thickness of 0.010 inches, the electrolyte solution contains alkyl sulphonic acid and an anion of molybdenum, where the amounts of these substances are disclosed in overlapping ranges to those set forth in claim 14, where the current density and temperature ranges of claim 15 are also taught by Wilmeth in overlapping ranges, wherein the alkyl sulphonic acid is a saturated aliphatic having the limitations of claim 16 discloses, the cathode efficiency is greater than 18%, and the current applied can be pulsed DC current to provide an alloy of chromium having at least 1.5% molybdenum deposited. The above reference inherently would set forth a final article that is a tubular metal body of reduced wall thickness which would inherently be lighter in weight and due to having the same thicknesses of the coating would inherently meet any industry standard for a pump system of abrasive materials, including concrete.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilmeth in view of Leland. The patent to Wilmeth discloses all of the recited structure with the exception of providing a step of smoothing by honing of the interior of the pipe. The patent to Leland discloses that it is old and known in the art to provide a

Art Unit: 3754

honing step to smooth the interior of the pipe being plated with chromium. It would have been obvious to one skilled in the art to modify the method in Wilmeth by including a step of honing the interior of the pipe being plated in chromium as suggested by Leland as such is an equivalent method used to plate with chromium and would insure a smooth inner finish that would be less likely to be different in thickness thereby providing weak portions which would cause premature failure and cost more money in repairs.

Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilmeth. The patent to Wilmeth discloses the recited method of improving abrasion resistance of a section of piping for use in a pump delivery system of abrasive materials where the use of such method on a concrete system is considered merely intended use where the method is capable of use on any pumped abrasive material pipe system of which concrete is one such example and the method is capable of being used to coat pipes for concrete as well, comprising providing a tubular metal body having an exposed exterior surface and a generally cylindrical internal surface, exposing the internal surface to an aqueous electrolyte solution containing at least water, chromic acid, and a catalyst such as a sulfate which is provided to increase plating rate, the internal surface is exposed to the electrolyte solution at a current density and at a plating temperature sufficient to form a chromium deposit of a desired thickness on the internal surface, where the chromium provides abrasion resistance, the chromium is deposited with an overlapping range with claim 9 (col. 3, lines 61-68), where 0.008 is set forth and where such is approximately a thickness of 0.010 inches, the electrolyte

Art Unit: 3754

solution contains alkyl sulphonic acid and an anion of molybdenum, where the amounts of these substances are disclosed in overlapping ranges to those set forth in claim 14, where the current density and temperature ranges of claim 15 are also taught by Wilmeth in overlapping ranges, wherein the alkyl sulphonic acid is a saturated aliphatic having the limitations of claim 16 discloses, the cathode efficiency is greater than 18%, and the current applied can be pulsed DC current to provide an alloy of chromium having at least 1.5% molybdenum deposited. The subject matter added to the preamble with regards to an adjustable boom structure is not considered to breath any life into the body of the method claim where the method would be capable of use on any type of pipe for delivering abrasive materials. The patent to Wilmeth discloses all of the recited structure with the exception of setting forth dimensions of the tubular body, however, such is merely a choice of mechanical expedients where one skilled in the art would only require routine experimentation to arrive at optimum uses for the method or article where such would obviously be useable on any sized piping when one skilled in the art would only require routine skill to adjust any variables that need to be adjusted to apply the method to specific sized pipes where such is merely a choice of mechanical expedients.

Response to Arguments

Applicant's arguments filed August 18, 2006 have been fully considered but they are not persuasive. The language added in regards to the boom structure is set forth only in the preamble and does not breathe any further life into the body of the method

Art Unit: 3754

claim of coating a pipe to prevent wear, and the additional language added to claim 1 does not set any actual limitations to the article itself that are not inherently met by the article set forth by the method of Wilmeth. With respect to any argument directed toward the particular requirements of a concrete pipe, such is not persuasive when such is not a limitation of the claims, and one skilled in the art would only need routine skill to conduct the method of Wilmeth on other sized pipes to arrive at pipes having dimensions and coatings as required. Size is also not considered critical to the article claim, and the size of the article being coated would not affect the overall method used to coat the article other than what one skilled in the art would have the skills to perform using routine experimentation to arrive at optimum sizes of equipment needed to coat different sized pipe as such is merely a choice of mechanical expedients, where one skilled in the art would only require routine skill as well to adjust sizes of the pipe to meet the needs of the user for a particular use. It is noted that a new use for a known article such as a plated pipe to reduce wear in abrasive pump applications is considered old and well known, and using such in a specific environment such as a concrete pumping boom is merely intended use for a known pipe.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference to Lehnhardt disclosing a state of the art article of a coated or plated pipe.

Art Unit: 3754

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

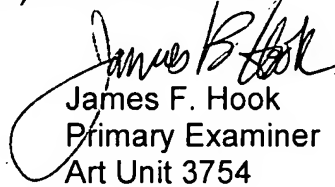
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


James F. Hook
Primary Examiner
Art Unit 3754

JFH